

IN THE CLAIMS:

Please amend claims 1, 2, and 6-27 as follows:

1. (Currently amended) A data switching node evaluating Protocol Data Unit (PDU) switching performance comprising:
 - a. a PDU classifier for extracting header information from PDUs received via a plurality of ports associated with the data switching node to generate extracted header information, said extracted header information being used to generate receive trace record entries;
 - b. a receive trace record having entries, each for storing said receive trace record entry specifying timed information regarding entries, each receive trace record entry generated with use of said extracted header information of a corresponding received PDU, each receive trace record entry excluding any payload of said corresponding received PDU and comprising a first time stamp associated with the generation of said receive trace record entry;
 - c. a switching function for processing said PDUs, wherein the processing of each corresponding PDU generates a corresponding processed PDU;
 - d. a transmit trace record having entries, each for storing transmit trace record entry specifying timed information regarding a corresponding processed PDU entries, each transmit trace record entry generated with information pertaining to said processing of said corresponding processed PDU, and comprising a second time stamp associated with the generation of said transmit trace record entry, each transmit trace record entry excluding any payload of said corresponding received PDU; and

- e. a processor using the information stored in trace record entries to for evaluating evaluate the performance of the switching function with use of said receive trace record entries and with use of said transmit trace record entries.
2. (Currently amended) A switching data node as claimed in claim 1, wherein the switching data node further comprises a timer for generating at least one of said first time stamp and said second time stamp.
3. (Original) A switching data node as claimed in claim 1, wherein each one of the trace records comprises a circular buffer storing the trace record entries.
4. (Original) A switching data node as claimed in claim 3, wherein each one of the circular buffers includes an index pointer specifying a next trace record entry to be populated.
5. (Original) A switching data node as claimed in claim 1, wherein the number of trace record entries associated with each one of the trace records is prespecified corresponding to a designed PDU processing throughput of the data switching node.
6. (Currently amended) A switching data node as claimed in claim 1, wherein the number of trace record entries associated with each one of the trace records is variable, the number of record entries being adjustable via ~~a~~ one of a manual setting, ~~a~~ management console, and a higher level protocol optimizing resources available for a current PDU processing throughput of the data switching node.
7. (Currently amended) A switching data node as claimed in claim 1, wherein each receive trace record entry ~~further comprises specifiers holding:~~ comprises identifying information which identifies said corresponding PDU, and wherein the first time stamp is indicative of a time at which said corresponding PDU was deemed to have been received.

a.. a time value indicative of the time at which the corresponding PDU was deemed to have been received; and

b. identifying information corresponding to the received PDU.

8. (Currently amended) A switching data node as claimed in claim 7, wherein the identifying information corresponding to the received PDU further comprises a specification of a location at which the said corresponding PDU is stored pending processing.

9. (Currently amended) A switching data node as claimed in claim 7, wherein the identifying information corresponding to the received PDU further comprises a specification of a port via which the said corresponding PDU was received.

10. (Currently amended) A switching data node as claimed in claim 7, wherein the identifying information corresponding to the received PDU further comprises a specification of a destination context corresponding to the received of said corresponding PDU.

11. (Currently amended) A switching data node as claimed in claim 1, wherein each transmit trace record entry further comprises specifiers holding: comprises identifying information which identifies said corresponding processed PDU, and wherein the second time stamp is indicative of a time at which said corresponding processed PDU was deemed to have been processed.

a.. a time value indicative of the time at which the corresponding PDU was deemed to have been processed; and

b. identifying information corresponding to the processed PDU.

12. (Currently amended) A switching data node as claimed in claim 11, wherein the identifying information corresponding to the processed PDU further comprises a specification of a location at which the said corresponding processed PDU was stored pending processing.

13. (Currently amended) A switching data node as claimed in claim 11, wherein the identifying information ~~corresponding to the processed PDU further~~ comprises a specification of a port via which the said corresponding processed PDU was received.

14. (Currently amended) A switching data node as claimed in claim 11, wherein the identifying information ~~corresponding to the processed PDU further~~ comprises a specification of a destination context ~~corresponding to the processed of said corresponding processed PDU~~.

15. (Currently amended) A switching data node as claimed in claim 14, wherein specification of the destination context of said corresponding ~~to the~~ processed PDU includes a port via which ~~the said corresponding processed PDU~~ is to be forwarded towards an intended destination.

16. (Currently amended) A switching data node as claimed in claim 14, wherein specification of the destination context of said corresponding ~~to the~~ processed PDU includes a specification that ~~the said corresponding processed PDU~~ is to be dropped.

17. (Currently amended) A method of evaluating a processing performance of a data switching node forwarding Protocol Data Units (PDUs) comprising steps of:

- a. extracting PDU header information from a plurality of received PDU PDUs to generate extracted header information;
generating a plurality of receive trace record entries, each receive trace record entry generated with use of said extracted header information of a corresponding received PDU, said receive trace record entry comprising a first time stamp associated with said generating of said receive trace record entry, and said receive trace record entry excluding any payload of said corresponding received PDU;

- b. populating an entry storing said plurality of received trace record entries in a receive trace record held by the data switching node;
- c. processing the said plurality of received PDU PDUs wherein the processing of each corresponding received PDU generates a corresponding processed PDU; generating a plurality of transmit trace record entries, each transmit trace record entry generated with use of information pertaining to said processing of said corresponding processed PDU, each transmit trace record entry comprising a second time stamp associated with said generating of said transmit trace record entry, each transmit trace record excluding any payload of said corresponding received PDU;
- d. populating an entry storing said plurality of transmit trace record entries in a transmit trace record held by the data switching node; and
- e. evaluating the processing performance based on information held in trace record entries with use of said plurality of receive trace record entries and with use of said plurality of transmit trace record entries.

18. (Currently amended) A method as claimed in claim 17, wherein populating a one of the trace record entries with information the method further comprises a step of populating each receive trace record entry comprises a PDU pointer entry with a value indicative of a location at which the corresponding received PDU is temporarily stored.

19. (Currently amended) A method as claimed in claim 17, wherein populating a one of the transmit trace record entries with information the method further comprises a step of populating the each transmit trace record entry with comprises information indicative of a PDU discard in the case of a PDU drop instance.

20. (Currently amended) A method as claimed in claim 19, wherein the step of evaluating the processing performance of the data switching node the method further comprises a step of calculating a PDU drop indication corresponding to each stream of data conveyed by the data switching node.

21. (Currently amended) A method as claimed in claim 19, wherein the step of evaluating the processing performance of the data switching node the method further comprises a step of calculating a PDU drop indication corresponding to a current operational state of the data switching node.

22. (Currently amended) A method as claimed in claim 17, wherein populating a one of the step of generating said plurality of receive trace record entries with information the method further comprises a step of populating a generating a first time stamp specifier associated with the receive trace entry with a time value indicative of the a time at which the PDU was deemed to be received.

23. (Currently amended) A method as claimed in claim 18, wherein populating a one of the step of generating said plurality of transmit trace record entries with information the method further comprises a step of populating a generating a second time stamp specifier associated with the transmit trace entry with a time value indicative of the a time at which the PDU was deemed to have been processed.

24. (Currently amended) A method as claimed in claim 22, wherein the step of evaluating the processing performance the method further comprises a step of determining a PDU processing delay by calculating the difference between time stamp values held in a receive trace record entry and a transmit trace record entry corresponding to the PDU.

25. (Currently amended) A method as claimed in claim 23, wherein the step of evaluating the processing performance ~~the method further comprises a step of~~ determining an average PDU processing delay incurred at the data switching node by calculating an average of the PDU processing delays incurred by corresponding PDUs.

26. (Currently amended) A method as claimed in claim 23, wherein the step of evaluating the processing performance ~~the method further comprises a step of~~ determining a PDU conveyance jitter for a stream of data by determining the distribution of PDU processing delays incurred by a plurality of PDUs associated with a stream of data.

27. (Currently amended) A method as claimed in claim 23, wherein the step of evaluating the processing performance ~~the method further comprises a step of~~ determining a PDU conveyance jitter for the data switching node by determining the distribution of PDU processing delays incurred by a plurality of PDUs forwarded by the data switching node.